Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) An electrochemical cell stack comprising:

(a) a first proton exchange membrane (PEM) electrochemical cell, said first PEM electrochemical cell comprising a first cell frame;

(b) a second PEM electrochemical cell, said first and second PEM electrochemical cells being stacked axially in a bipolar configuration, said second PEM electrochemical cell comprising a second cell frame; and

(c) a reinforcing member peripherally surrounding both said first cell frame of said first PEM electrochemical cell and said second cell frame of said second PEM electrochemical cell, said reinforcing member being a rigid member dimensioned to provide external radial support to said first and second cell frames.

2. (Original) The electrochemical cell stack as claimed in claim 1 wherein said first and second cell frames are cylindrical in shape and wherein said reinforcing member is cylindrical in shape.

3. (Original) The electrochemical cell stack as claimed in claim 2 wherein said reinforcing member is made of a rigid plastic.

4. (Currently amended) ~~The~~ An electrochemical cell stack ~~as claimed in claim 3~~ comprising:

(a) a first proton exchange membrane (PEM) electrochemical cell, said first PEM electrochemical cell comprising a first cell frame;

(b) a second PEM electrochemical cell, said first and second PEM electrochemical cells being cylindrical in shape and stacked axially in a bipolar configuration, said second PEM electrochemical cell comprising a second cell frame; and

(c) a reinforcing member peripherally surrounding both said first cell frame of said first PEM electrochemical cell and said second cell frame of said second PEM electrochemical cell, said reinforcing member being made of a rigid plastic, cylindrical in shape, and dimensioned to provide external radial support to said first and second cell frames, wherein said reinforcing member is sized to be spaced from said first and second cell frames at ambient temperature and pressure and in contact with said first and second cell frames when expanded at operating temperature and pressure so as to reduce frame stress.

5. (Previously presented) The electrochemical cell stack as claimed in claim 2 wherein said reinforcing member is made of a metal, said electrochemical cell stack further comprising electrically insulating material interposed between said reinforcing member and said first and second cell frames.

6. (Original) The electrochemical cell stack as claimed in claim 5 wherein said reinforcing member is made of stainless steel.

Claim 7 (Canceled).

8. (Original) The electrochemical cell stack as claimed in claim 2 wherein said reinforcing member is provided with a plurality of vents.

9. (Previously presented) An electrochemical cell stack comprising:

(a) a first proton exchange membrane (PEM) electrochemical cell, said first PEM electrochemical cell comprising a first cell frame, said first cell frame being cylindrical in shape;

(b) a second PEM electrochemical cell, said first and second PEM electrochemical cells being stacked in series in a bipolar configuration, said second PEM electrochemical cell comprising a second cell frame, said second cell frame being cylindrical in shape; and

(c) a reinforcing member peripherally surrounding both said first cell frame of said first PEM electrochemical cell and said second cell frame of said second PEM electrochemical cell, said reinforcing member being cylindrical in shape and dimensioned to provide external support to said first and second cell frames, wherein said reinforcing member is provided with a plurality of vents and wherein said vents are distributed around the periphery of said reinforcing member.

10. (Previously presented) An electrochemical cell stack comprising:

(a) a first proton exchange membrane (PEM) electrochemical cell, said first PEM electrochemical cell comprising

(i) first and second separators, said first and second separators being electrically conductive, being spaced apart from one another and being generally parallel to one another;

(ii) a first proton exchange membrane disposed between said first and second separators;

(iii) a first anode, said first anode being positioned between said first proton exchange membrane and said first separator and being electrically coupled to said first proton exchange membrane;

(iv) a first cathode, said first cathode being positioned between said proton exchange membrane and said second separator and being electrically coupled to said first proton exchange membrane;

(v) first electrically-conductive means for forming a fluid cavity between said first anode and said first separator;

(vi) second electrically-conductive means for forming a fluid cavity between said first cathode and said second separator;

(vii) a first pair of cell frames, one of said cell frames being in peripheral contact with said first electrically-conductive means, the other of said cell frames being in peripheral contact with said second electrically-conductive means;

(b) a second PEM electrochemical cell, said first and second PEM electrochemical cells being stacked axially in a bipolar configuration, said second PEM electrochemical cell comprising

(i) third and fourth separators, said third and fourth separators being electrically conductive, being spaced apart from one another and being generally parallel to one another;

(ii) a second proton exchange membrane disposed between said third and fourth separators;

(iii) a second anode, said second anode being positioned between said second proton exchange membrane and said third separator and being electrically coupled to said second proton exchange membrane;

(iv) a first cathode, said first cathode being positioned between said second proton exchange membrane and said fourth separator and being electrically coupled to said second proton exchange membrane;

(v) third electrically-conductive means for forming a fluid cavity between said second anode and said third separator;

(vi) fourth electrically-conductive means for forming a fluid cavity between said second cathode and said fourth separator;

(vii) a second pair of cell frames, one of said cell frames being in peripheral contact with said third electrically-conductive means, the other of said cell frames being in peripheral contact with said fourth electrically-conductive means;

(c) a reinforcing member peripherally surrounding both said first pair of cell frames and said second pair of cell frames, said reinforcing member being dimensioned to provide external radial support to said first and second pairs of cell frames.

11. (Original) The electrochemical cell stack as claimed in claim 10 wherein said first and second pairs of cell frames are cylindrical in shape and wherein said reinforcing member is cylindrical in shape.

12. (Original) The electrochemical cell stack as claimed in claim 11 wherein said reinforcing member is made of a rigid plastic.

13. (Previously presented) The electrochemical cell stack as claimed in claim 12 wherein said reinforcing member is sized to be spaced from said first and second cell frames at ambient temperature and pressure and in contact with said first and second cell frames when expanded at operating temperature and pressure so as to reduce frame stress.

14. (Previously presented) The electrochemical cell stack as claimed in claim 11 wherein said reinforcing member is made of a metal, said electrochemical cell stack further comprising

electrically insulating material interposed between said reinforcing member and said first and second cell frames.

15. (Original) The electrochemical cell stack as claimed in claim 14 wherein said reinforcing member is made of stainless steel.

Claim 16 (Canceled).

17. (Original) The electrochemical cell stack as claimed in claim 11 wherein said reinforcing member is provided with a plurality of vents.

18. (Previously presented) An electrochemical cell stack comprising:

(a) a first proton exchange membrane (PEM) electrochemical cell, said first PEM electrochemical cell comprising

(i) first and second separators, said first and second separators being electrically conductive, being spaced apart from one another and being generally parallel to one another;

(ii) a first proton exchange membrane disposed between said first and second separators;

(iii) a first anode, said first anode being positioned between said first proton exchange membrane and said first separator and being electrically coupled to said first proton exchange membrane;

(iv) a first cathode, said first cathode being positioned between said proton exchange membrane and said second separator and being electrically coupled to said first proton exchange membrane;

(v) first electrically-conductive means for forming a fluid cavity between said first anode and said first separator;

(vi) second electrically-conductive means for forming a fluid cavity between said first cathode and said second separator;

(vii) a first pair of cell frames, one of said cell frames being in peripheral contact with said first electrically-conductive means, the other of said cell frames being in peripheral contact with said second electrically-conductive means, each of said first pair of cell frames being cylindrical in shape;

(b) a second PEM electrochemical cell, said first and second PEM electrochemical cells being stacked in series in a bipolar configuration, said second PEM electrochemical cell comprising

(i) third and fourth separators, said third and fourth separators being electrically conductive, being spaced apart from one another and being generally parallel to one another;

(ii) a second proton exchange membrane disposed between said third and fourth separators;

(iii) a second anode, said second anode being positioned between said second proton exchange membrane and said third separator and being electrically coupled to said second proton exchange membrane;

(iv) a first cathode, said first cathode being positioned between said second proton exchange membrane and said fourth separator and being electrically coupled to said second proton exchange membrane;

(v) third electrically-conductive means for forming a fluid cavity between said second anode and said third separator;

(vi) fourth electrically-conductive means for forming a fluid cavity between said second cathode and said fourth separator;

(vii) a second pair of cell frames, one of said cell frames being in peripheral contact with said third electrically-conductive means, the other of said cell frames being in peripheral contact with said fourth electrically-conductive means, each of said second pair of cell frames being cylindrical in shape;

(c) a reinforcing member peripherally surrounding both said first pair of cell frames and said second pair of cell frames, said reinforcing member being cylindrical in shape and dimensioned to provide external support to said first and second pairs of cell frames, wherein said reinforcing member is provided with a plurality of vents and wherein said vents are distributed around the periphery of said reinforcing member.

19. (Original) The electrochemical cell stack as claimed in claim 10 wherein each of said first electrically-conductive means for forming a fluid cavity between said first anode and said first separator and said third electrically-conductive means for forming a fluid cavity between said second anode and said third separators is a metal screen.

20. (Previously presented) An electrochemical cell stack comprising:

(a) a first proton exchange membrane (PEM) electrochemical cell, said first PEM electrochemical cell comprising

(i) first and second separators, said first and second separators being electrically conductive, being spaced apart from one another and being generally parallel to one another;

(ii) a first proton exchange membrane disposed between said first and second separators;

(iii) a first anode, said first anode being positioned between said first proton exchange membrane and said first separator and being electrically coupled to said first proton exchange membrane;

(iv) a first cathode, said first cathode being positioned between said proton exchange membrane and said second separator and being electrically coupled to said first proton exchange membrane;

(v) first electrically-conductive means for forming a fluid cavity between said first anode and said first separator, wherein said first electrically-conductive means is a metal screen;

(vi) second electrically-conductive means for forming a fluid cavity between said first cathode and said second separator, wherein said second electrically-conductive means is a compression pad, said compression pad being electrically-conductive, spring-like and porous and comprising a mat of carbon fibers having a density of about 0.2-0.55 g/cm^3;

(vii) a first pair of cell frames, one of said cell frames being in peripheral contact with said first electrically-conductive means, the other of said cell frames being in peripheral contact with said second electrically-conductive means;

(b) a second PEM electrochemical cell, said first and second PEM electrochemical cells being stacked in series in a bipolar configuration, said second PEM electrochemical cell comprising

(i) third and fourth separators, said third and fourth separators being electrically conductive, being spaced apart from one another and being generally parallel to one another;

(ii) a second proton exchange membrane disposed between said third and fourth separators;

(iii) a second anode, said second anode being positioned between said second proton exchange membrane and said third separator and being electrically coupled to said second proton exchange membrane;

(iv) a first cathode, said first cathode being positioned between said second proton exchange membrane and said fourth separator and being electrically coupled to said second proton exchange membrane;

(v) third electrically-conductive means for forming a fluid cavity between said second anode and said third separator, wherein said third electrically-conductive means is a metal screen;

(vi) fourth electrically-conductive means for forming a fluid cavity between said second cathode and said fourth separator, wherein said fourth electrically-conductive means is a compression pad, said compression pad being electrically-conductive, spring-like and porous and comprising a mat of carbon fibers having a density of about 0.2-0.55 g/cm^3;

(vii) a second pair of cell frames, one of said cell frames being in peripheral contact with said third electrically-conductive means, the other of said cell frames being in peripheral contact with said fourth electrically-conductive means;

(c) a reinforcing member peripherally surrounding both said first pair of cell frames and said second pair of cell frames, said reinforcing member being dimensioned to provide external support to said first and second pairs of cell frames.

21. (Original) The electrochemical cell stack as claimed in claim 20 wherein said second separator is in direct contact with said third separator.

22. (Original) The electrochemical cell stack as claimed in claim 10 further comprising a compression pad interposed between and electrically interconnecting said second separator and said third separator.

23. (Currently amended) An electrochemical cell stack comprising:

(a) a first plurality of proton exchange membrane (PEM) electrochemical cells stacked axially in a bipolar configuration, each of said first plurality of PEM electrochemical cells comprising a cell frame;

(b) a first reinforcing member peripherally surrounding said cell frames of said first plurality of PEM electrochemical cells, said first reinforcing member being a rigid member dimensioned to provide external radial support to said cell frames of said first plurality of PEM electrochemical cells;

(c) a second plurality of PEM electrochemical cells stacked axially in a bipolar configuration, each of said second plurality of PEM electrochemical cells comprising a cell frame; and

(d) a second reinforcing member peripherally surrounding said cell frames of said second plurality of PEM electrochemical cells, said second reinforcing member being dimensioned to provide external radial support to said cell frames of said second plurality of PEM electrochemical cells.

24. (Previously presented) An electrochemical cell stack comprising:

(a) a first plurality of proton exchange membrane (PEM) electrochemical cells stacked axially in a bipolar configuration, each of said first plurality of PEM electrochemical cells comprising a cell frame,

(b) a first reinforcing member peripherally surrounding said cell frames of said first plurality of PEM electrochemical cells, said first reinforcing member being dimensioned to provide external radial support to said cell frames of said first plurality of PEM electrochemical cells,

(c) a first plate,

(d) a second plate, wherein each of said first plate and said second plate is electrically conductive, wherein said first plurality of PEM electrochemical cells are disposed between said first plate and said second plate, and

(e) means for urging said first plate and said second plate towards one another.

25. (Previously presented) The electrochemical cell stack as claimed in claim 24 further comprising a second plurality of proton exchange membrane (PEM) electrochemical cells stacked axially in a bipolar configuration, each of said second plurality of PEM electrochemical cells comprising a cell frame, a second reinforcing member peripherally surrounding said cell frames of said second plurality of PEM electrochemical cells, said second reinforcing member being dimensioned to provide external radial support to said cell frames of said second plurality of PEM

electrochemical cells, a third plate, said third plate being electrically conductive, said second plurality of PEM electrochemical cells being disposed between said second plate and said third plate, and means for urging said second plate and said third plate towards one another.